

ABSTRACT

A method of forming an integrated circuit with a semiconductor substrate is provided. A gate dielectric is formed on the semiconductor substrate, and a gate is formed on the gate dielectric. Source/drain junctions are formed in the semiconductor substrate. A silicide is
5 formed on the source/drain junctions and on the gate. An interlayer dielectric having contact holes therein is formed above the semiconductor substrate. Contact liners are formed in the contact holes, and contacts are then formed over the contact liners. The contact liners are nitrides of the contact material, and formed at a temperature below the thermal budget for the silicide.